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Wolfgang Lehner, Richard Sidle, Hamid Pirahesh, Roberta Wolfgang Cochrane

May 2000 SIGMOD '00: Proceedings of the 2000 ACM SIGMOD international conference on Management of data

Publisher: ACM

Full text available: Pdf (25.76 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index term](#)

Bibliometrics: Downloads (6 Weeks): 5, Downloads (12 Months): 58, Citation Count: 6

Materialized views (or Automatic Summary Tables—ASTs) are commonly used to improve the performance of aggregation queries by orders of magnitude. In contrast to regular tables, ASTs synchronized by the database system. In this paper, we present ...

2 [Maintenance of cube automatic summary tables](#)

Wolfgang Lehner, Richard Sidle, Hamid Pirahesh, Roberta Wolfgang Cochrane

June 2000 ACM SIGMOD Record, Volume 29 Issue 2

Publisher: ACM

Full text available: Pdf (25.76 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index term](#)

Bibliometrics: Downloads (6 Weeks): 5, Downloads (12 Months): 58, Citation Count: 6

Materialized views (or Automatic Summary Tables—ASTs) are commonly used to improve the performance of aggregation queries by orders of magnitude. In contrast to regular tables, ASTs synchronized by the database system. In this paper, we present ...

3 [Communications of the ACM: Volume 51 Issue 8](#)

August 2008 issue Volume 51 Issue 8

Publisher: ACM

Full text available: Digital Edition, Pdf (6.85 MB) Additional Information: [full citation](#)

Bibliometrics: Downloads (6 Weeks): 1079, Downloads (12 Months): 1812, Citation Count: 0

4 [Towards multidimensional subspace skyline analysis](#)

Jian Pei, Yidong Yuan, Xuemin Lin, Wen Jin, Martin Ester, Qing Liu, Wei Wang, Yufei Tao, Jeffrey Xu Qing Zhang

December 2006 ACM Transactions on Database Systems (TODS), Volume 31 Issue 4

Publisher: ACM

Full text available: Pdf (713.24 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 21, Downloads (12 Months): 140, Citation Count: 1

The skyline operator is important for multicriteria decision-making applications. Although many studies developed efficient methods to compute skyline objects in a given space, none of them considers skylines in multiple subspaces simultaneously. ...

**Keywords:** Skyline query, data cubing, multidimensional data analysis

## 5 Representing concerns in source code



Martin P. Robillard, Gail C. Murphy

February 2007 ACM Transactions on Software Engineering and Methodology (TOSEM), Volun

Issue 1

Publisher: ACM

Full text available: Pdf (1.24 MB)

**Additional Information:** [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 50, Downloads (12 Months): 451, Citation Count: 6

A software modification task often addresses several *concerns*. A concern is anything a stakeholder may want to consider as a conceptual unit, including features, nonfunctional requirements, and design idioms. In many cases, the source code implementing ...

**Keywords:** Java, Separation of concerns, aspect-oriented software development, concern model, software evolution

## 6 Tool support for refactoring functional programs



Huigang Li, Claus Reinke, Simon Thompson

August 2003 Haskell '03: Proceedings of the 2003 ACM SIGPLAN workshop on Haskell

Publisher: ACM

Full text available: Pdf (156.41 KB)

**Additional Information:** [full citation](#), [abstract](#), [references](#), [cited by](#), [index term](#)

**Bibliometrics:** Downloads (6 Weeks): 13, Downloads (12 Months): 92, Citation Count: 6

Refactorings are source-to-source program transformations which change program structure and organisation, but not program functionality. Documented in catalogues and supported by tools, refactoring provides the means to adapt and improve the design ...

**Keywords:** Haskell, language-aware programming environments, program transformation, refactoring, semantic editors

## 7 Customization change impact analysis for erp professionals via program slicing



Nurit Dor, Tal Lev-Ami, Shay Litvak, Mooly Sagiv, Dror Weiss

July 2008 I SSTA '08: Proceedings of the 2008 international symposium on Software testing and analysis

Publisher: ACM

Full text available: Pdf (291.87 KB)

**Additional Information:** [full citation](#), [abstract](#), [references](#), [index terms](#)

**Bibliometrics:** Downloads (6 Weeks): 21, Downloads (12 Months): 45, Citation Count: 0

We describe a new tool that automatically identifies impact of customization changes, i.e., how changes affect software behavior. As opposed to existing static analysis tools that aim at aiding programmers or improve performance, our tool is designed ...

**Keywords:** customization change impact analysis

## 8 Efficient processing of top-k dominating queries on multi-dimensional data

Man Lung Yiu, Nikos Mamoulis

September 2007 VLDB '07: Proceedings of the 33rd international conference on Very large data bases

Publisher: VLDB Endowment

Full text available: Pdf (300.11 KB)

**Additional Information:** [full citation](#), [abstract](#), [references](#)

**Bibliometrics:** Downloads (6 Weeks): 8, Downloads (12 Months): 70, Citation Count: 1

The top- $k$  dominating query returns  $k$  data objects which dominate the highest number of objec

dataset. This query is an important tool for decision support since it provides data analysts an intuitive way for finding significant objects. ...

### 9 Manipulating structured information in a visual workspace



Haowei Hsieh, Frank M. Shipman

October 2002 UI ST '02: Proceedings of the 15th annual ACM symposium on User interface software technology

Publisher: ACM

Full text available: Pdf (423.35 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index term review](#)

Bibliometrics: Downloads (6 Weeks): 14, Downloads (12 Months): 90, Citation Count: 7

This paper describes the VITE system, a visual workspace that supports two-way mapping for projecting structured information to a two-dimensional workspace and updating the structured information based on user interactions in the workspace. This is related ...

Keywords: editable visualizations, information visualization, information workspace, two-way mappings

### 10 Spatio-temporal data reduction with deterministic error bounds



Hu Cao, Ouri Wolfson, Goce Trajcevski

September 2003 DI ALM-POMC '03: Proceedings of the 2003 joint workshop on Foundations of mobile computing

Publisher: ACM

Full text available: Pdf (243.00 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index term](#)

Bibliometrics: Downloads (6 Weeks): 3, Downloads (12 Months): 28, Citation Count: 2

A common way of storing spatio-temporal information about mobile devices is in the form of a 3D (geography + time) trajectory. We argue that when cellular phones and Personal Digital Assistants become location-aware, the size of the spatio-temporal ...

Keywords: line simplification, moving objects database

### 11 Efficient runtime invariant checking: a framework and case study



Michael Gorbovitski, Tom Rothamel, Yanhong A. Liu, Scott D. Stoller

July 2008 WODA '08: Proceedings of the 2008 international workshop on dynamic analysis: held in conjunction with the ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA 2008)

Publisher: ACM

Full text available: Pdf (899.87 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Bibliometrics: Downloads (6 Weeks): 12, Downloads (12 Months): 25, Citation Count: 0

This paper describes a general and powerful framework for efficient runtime invariant checking. The framework supports (1) declarative specification of arbitrary invariants using high-level queries, (2) easy use of information from any data in the execution, ...

Keywords: alias analysis, incrementalization, program transformation, runtime verification

### 12 Recommending adaptive changes for framework evolution



Barthélemy Dagenais, Martin P. Robillard

May 2008 ICSE '08: Proceedings of the 30th international conference on Software engineering

Publisher: ACM

Full text available: Pdf (525.33 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 146, Citation Count: 1

In the course of a framework's evolution, changes ranging from a simple refactoring to a complete

rchitecture can break client programs. Finding suitable replacements for framework elements were accessed by a client program and deleted as part ...

Keywords: adaptive changes, framework, historical study, mining software repositories, origin analysis, partial program analysis, recommendation system, software evolution

### 13 Predicting component failures at design time

 Adrian Schröter, Thomas Zimmermann, Thomas Zimmermann, Andreas Zeller  
September 2006 ISESE '06: Proceedings of the 2006 ACM/IEEE international symposium on Empirical software engineering


Publisher: ACM

Full text available:  Pdf (446.45 KB) Additional Information: full citation, abstract, references, cited by, index term

Bibliometrics: Downloads (6 Weeks): 8, Downloads (12 Months): 146, Citation Count: 12

How do design decisions impact the quality of the resulting software? In an empirical study of 5: ECLIPSE plug-ins, we found that the software design as well as past failure history, can be used build models which accurately predict failure-prone ...

### 14 Studying the evolution of the Eclipse Java editor


 Daqing Hou  
October 2007 eclipse '07: Proceedings of the 2007 OOPSLA workshop on eclipse technology eXchange  
Publisher: ACM

Full text available:  Pdf (391.31 KB) Additional Information: full citation, abstract, references

Bibliometrics: Downloads (6 Weeks): 7, Downloads (12 Months): 170, Citation Count: 0

In evolutionary software development, knowing how design evolves with features can be valuable guiding future projects. It helps answer questions like "How much upfront design should and can be done?" and "How and why are designs changed?" To shed ...

### 15 Fast algorithms for compressed multimethod dispatch table generation

 Eric Dujardin, Eric Amiel, Eric Simon  
January 1998 ACM Transactions on Programming Languages and Systems (TOPLAS), Volume 19 Issue 1

Publisher: ACM


Full text available:  Pdf (682.21 KB) Additional Information: full citation, abstract, references, cited by, index term

Bibliometrics: Downloads (6 Weeks): 11, Downloads (12 Months): 48, Citation Count: 8

The efficiency of dynamic dispatch is a major impediment to the adoption of multimethods in object-oriented languages. In this article, we propose a simple multimethod dispatch scheme based on compressed dispatch tables. This scheme is applicable to ...

Keywords: dispatch tables, late binding, multimethods, optimization, pole types, run-time dispatch

### 16 Fronimatiou (TOC, Miscellaneous material)

 ACM SIGSOFT Software Engineering Notes staff  
November 2006 ACM SIGSOFT Software Engineering Notes, Volume 31 Issue 6  
Publisher: ACM

Full text available:  Pdf (1.25 MB) Additional Information: full citation

Bibliometrics: Downloads (6 Weeks): 20, Downloads (12 Months): 244, Citation Count: 0

### 17 A comparative study of coarse- and fine-grained safe regression test-selection techniques



John Bible, Gregg Rothermel, David S. Rosenblum

April 2001 ACM Transactions on Software Engineering and Methodology (TOSEM), Volume 10 Issue 2

Publisher: ACM

Full text available: Pdf (204.13 KB)

Additional Information: full citation, abstract, references, cited by, index term review

Bibliometrics: Downloads (6 Weeks): 14, Downloads (12 Months): 133, Citation Count: 13

Regression test-selection techniques reduce the cost of regression testing by selecting a subset existing test suite to use in retesting a modified program. Over the past two decades, numerous regression test-selection techniques ...

Keywords: regression test selection, regression testing

## 18 [Dynamic slicing on Java bytecode laces](#)



Tao Wang, Abhik Roychoudhury

March 2008 ACM Transactions on Programming Languages and Systems (TOPLAS), Volume 30 Issue 2

Publisher: ACM

Full text available: Pdf (1.58 MB)

Additional Information: full citation, abstract, references, index terms

Bibliometrics: Downloads (6 Weeks): 34, Downloads (12 Months): 240, Citation Count: 1

Dynamic slicing is a well-known technique for program analysis, debugging and understanding. a program  $P$  and input  $I$ , it finds all program statements which directly/indirectly affect the value some variables' occurrences when  $P$  ...

Keywords: Program slicing, debugging, tracing

## 19 [Jeannie: granting java native interface developers their wishes](#)



Martin Hirzel, Robert Grimm

October 2007 OOPSLA '07: Proceedings of the 22nd annual ACM SIGPLAN conference on Object oriented programming systems and applications

Publisher: ACM

Full text available: Pdf (538.61 KB)

Additional Information: full citation, abstract, references, index terms

Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 185, Citation Count: 2

Higher-level languages interface with lower-level languages such as C to access platform functionality, reuse legacy libraries, or improve performance. This raises the issue of how to best integrate different languages while also reconciling productivity, ...

Keywords: C, JNI, foreign function interface, java, modular syntax, programming language composition, rats!, xtc

## 20 [Jeannie: granting java native interface developers their wishes](#)



Martin Hirzel, Robert Grimm

October 2007 ACM SIGPLAN Notices, Volume 42 Issue 10

Publisher: ACM

Full text available: Pdf (538.61 KB)

Additional Information: full citation, abstract, references, index terms

Bibliometrics: Downloads (6 Weeks): 15, Downloads (12 Months): 185, Citation Count: 2

Higher-level languages interface with lower-level languages such as C to access platform functionality, reuse legacy libraries, or improve performance. This raises the issue of how to best integrate different languages while also reconciling productivity, ...

Keywords: C, JNI, foreign function interface, java, modular syntax, programming language composition, rats!, xtc

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